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ABSTRACT

This booklet discusses the important role that day care providers can play in ensuring that children eat healthy snacks and meals and learn good eating habits. Section one of the booklet examines snack foods, discusses the difference between nutritious and less-nutritious snacks, and recommends snack foods appropriate for different age groups. Section two addresses the problem of "picky" eaters and how to handle such children. Section three considers the case of overweight children, explaining how inactivity, poor food choices, and parental attitudes toward food can play a role in obesity, and suggesting food choices and preparation ideas for such children. Part four looks at the important role that vitamins and minerals play in good nutrition and recommends specific food sources for important vitamins and minerals. Part five outlines ways in which teachers can instruct children about different foods and why they should eat a variety of foods, providing examples of specific activities. Part six discusses food preparation ideas that can involve children, suggesting menu items that children and their teachers can prepare together. (MDM)

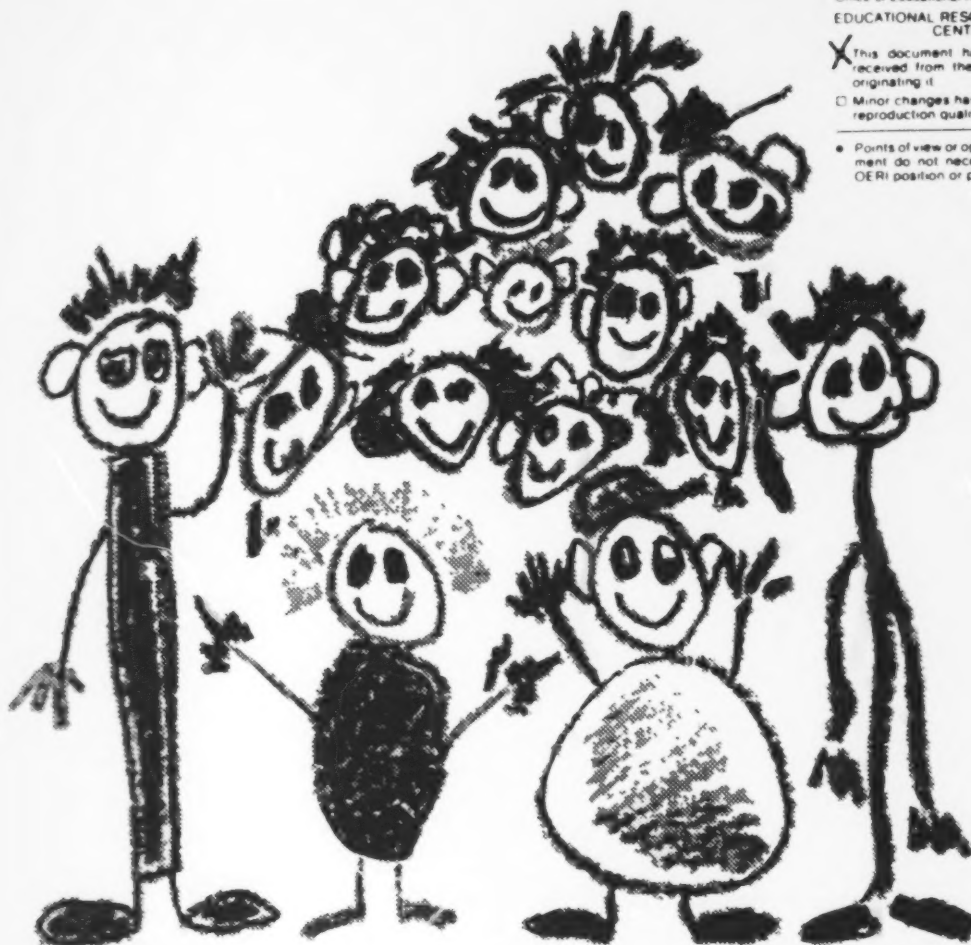
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Growing Healthy Bodies

Nutrition Education for Day Care Providers

Margaret A. Viebrock and Holly Berry

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Materials in this publication and in the accompanying video are based on the authors' extensive review of current research on nutrition for children, on their numerous surveys of and interviews with day care providers, and on their collective experience in teaching nutrition education. They are active in teaching nutrition education to parents with young children and to teachers in preschools, Head Start, child care centers, and day care facilities. They have also designed and taught summer day camps on nutrition, food preparation, health, and fitness for 4-H members and youth at risk.



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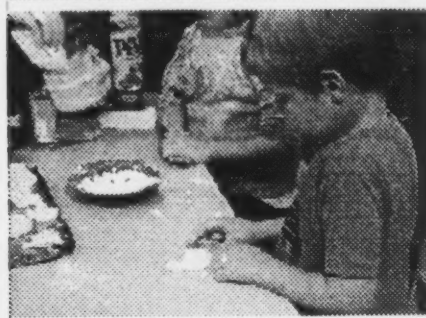
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Photographs of children and day care providers are reproduced from the companion video, *Growing Healthy Bodies*.

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Dear Day Care Provider:

You probably already know that food is an important part of every child's emotional, physical, and social development. And almost certainly you've noticed that food habits are begun early. In fact, research has shown that food habits established during the preschool years may affect a person's food behavior throughout life!

Since some children spend as much as two-thirds of their day in a day care setting, you assume tremendous responsibility for the health and well-being of children every day. And the importance of your work will continue to grow as the number of women working outside the home increases.

Your attitudes and actions help shape the eating habits and food attitudes of the children in your care. Parents depend on you to provide their children's nutritional needs during the day. Yet, ultimately, it is the parents' responsibility to determine how their children will be fed.

Children and food. Separately these two subjects arouse emotion. Together they often top the child care providers' list of concerns. In our talks with you we've learned that you worry about:

- Picky eaters
- Children getting enough to eat
- Introducing foods
- Providing nutritious and appealing snacks

Our nutrition education program provides information on nutritional needs of children, promotes lifelong, healthy eating habits, and helps you teach children to appreciate healthy foods. The last chapter presents some ideas for getting kids into the kitchen so they can learn about food while having fun.

Use this publication alone or with the four-part video entitled "Growing Healthy Bodies." Please start with the topic that concerns you most, and follow with other chapters as that information is needed.

Growing healthy bodies. Few things could possibly be more important to us and our children.

Margaret *Holly*

Margaret

Holly

Snack Facts

Most children need snacks. Their stomachs are small and cannot hold much food at one time. They may not be able to eat enough food at one meal to last them until the next. Snacks prevent them from getting too hungry between meals.

Snacks can help children develop good eating habits. With guidance, children learn how to make healthy food choices early in life. Snack time also provides an opportunity to learn good manners and social skills.

Are All Snacks Good?

All snacks provide calories which may be burned for energy, but they should also provide nutrients that growing children need. Certainly some snack choices offer greater nutritional benefit than others.

Snacking on foods like candy, cookies, and soda pop can become a habit that is hard to change. These snacks provide few nutrients and a lot of calories. Snacks high in sugar are also very hard on teeth. Very active children may need additional calories for energy. In this case, some high-calorie foods may be all right, but only after essential nutritional requirements have been met.

Plan snacks when you plan regular meals so you can be sure to offer a balanced diet. Choose snacks from the five basic food groups to help meet the nutritional needs of children. Call healthy food choices "snacks" so children will become accustomed to thinking of good, wholesome foods as appropriate snacks between meals.

Foods With Many Nutrients

- Enriched or whole grain bread and crackers
- Pudding, ice cream
- Fresh fruits and fruit juices
- Raw vegetables
- Milk, cheese, yogurt
- Peanut butter, eggs

Foods With Few Nutrients

- Soft drinks
- Fruit-flavored drinks
- Sweet rolls, doughnuts
- Candy
- Cake, pie, pastry
- Chips, fried snacks

When Should Snacks Be Served?

Preschool children like routine. Time snacks midway between one meal and the next so food needs are met without spoiling the child's appetite. It takes about two hours for the stomach to empty its contents, so most children welcome a snack about two to two-and-a-half hours after a meal. If a child eats breakfast at 7:30 a.m., and lunch is served at noon, a snack would be appropriate around 9:30 a.m.

When dinner is light or early, some children need a bedtime snack to carry them through until breakfast. Snacks could include peanut butter and half a slice of bread, a tortilla with cheese, yogurt, or a piece of fruit.

When children do not eat well at meals, you may discover that snacks are too frequent, too large, or take place too close to mealtime.

A regular eating schedule should:

- Meet nutrition needs.
- Be flexible.
- Provide a sense of security to the child.

How Much Should Be Served?

Snacks should be nourishing and satisfying. Let children decide how much they need. Offer a small amount and let them ask for seconds if they want more. Trusting children's ability to regulate themselves may be hard, but when a variety of good, wholesome food is provided, this ability will prevail.

When nutritious foods such as fresh fruit, vegetables, whole grain breads, cheese, or peanut butter are offered, more chewing is required and it takes longer to eat. Overeating is not as likely to occur as it might be with foods like soda pop, candy, cookies, or other processed snack foods.

What are your responsibilities?

- Select and buy nutritious foods.
- Wash hands before preparing food to prevent the spread of bacteria.
- Prepare and serve wholesome meals.
- Make mealtime pleasant.
- Maintain standards of behavior at the table.
- Allow eating methods a child can master.
- Maintain a regular schedule of meals and snacks.

What are the child's responsibilities?

- Decide how much food to eat.
- Choose to eat or not to eat.

Snacks for Special Occasions

Holidays give you an opportunity to substitute healthy alternatives for sweet foods. The same guidelines for snack and food preparation can be used for celebrations. Keep salty and sweet foods to a minimum. Preschoolers enjoy simply-prepared, attractive foods much more than elaborate menus with lots of sweets, fats, and salty foods.

Don't center celebrations around food. Focus on action. Have fun doing special activities that observe notable occasions. Relive history or create new events to provide an entertaining activity time.

Are You a Good Snacking Model?

Children frequently copy the people who are most important to them. If you make healthy choices for your snacks, children are more likely to choose similar foods. Help children develop positive attitudes toward eating nutritious snacks by modeling healthy behaviors. The habits they form will continue throughout their lives.

Getting Started With More Healthy Snacks

The first step is planning. Determine your menus for the week or

the month, and add snacks to complement them nutritionally. The next step is to keep healthy snacks on hand. Reduce the availability of candy, cookies, soda pop, and other less nutritious food.

Help children accept new snacks by involving them in food preparation. The more children know about a new food, the less strange it will seem. The more experience they have with the way it feels, how it smells, and where it comes from, the more likely they are to accept it.

The degree of children's involvement will be determined by age and ability, but with some help, just about any child can assist. Peeling a banana, choosing place mats, arranging napkins, or stirring and mixing are simple tasks for younger children. Older children can measure ingredients, read a simple picture recipe, and wash dishes.

Most children need snacks. With a little effort, snacks can be fun to make, tasty, and above all, good for kids!

What Snack Foods Are Appropriate for Young Children?

10-12 months to 2 years

Milk, chocolate milk
Yogurt, plain or with fruit
Ice cream
Cottage cheese
Cheese cubes or slices (mild-flavored or process)
Cocoa

Fruit such as:
Raw, peeled apple
Ripe pear, peach
Citrus fruits (without seeds and tough membrane):

- Orange
- Tangerine
- Grapefruit

Fruit juices
Cantaloupe or watermelon
Banana slices

Crackers
Zwieback
Dry cereal (not sugar-coated)
Toast pieces
Bread sticks without seeds

Small pieces of soft-cooked vegetables such as:

- Carrots
- Squash
- Broccoli

Meat sticks
Tender cubes of meat and poultry

2 years and older

Milk, chocolate milk
Yogurt, plain or with fruit
Ice cream
Cottage cheese
Cheese cubes or slices (mild-flavored or process)
Cocoa

Fresh fruit slices such as:

- Apples, pears, peaches
- Watermelon, cantaloupe
- Grapefruit, oranges
- Grapes, prunes
- Bananas, berries

Dried fruits
Fruit juices

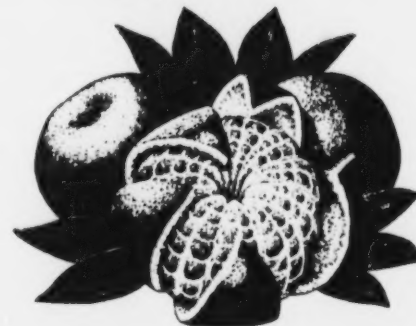
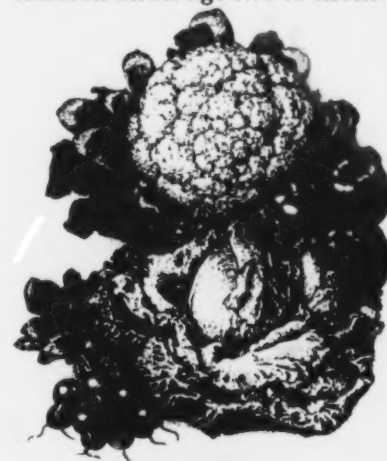
Dry cereal (not sugar-coated)
Unsalted or low-fat crackers
English muffins
Pretzels, preferably unsalted
Bread sticks

Raw vegetables such as:

- Cucumber slices or sticks
- Celery, carrot sticks
- Broccoli and cauliflower
- Green pepper strips

Meat sticks
Chicken, ham, or tuna salad
Bean dips for raw vegetables
Hard-cooked eggs
Smooth peanut butter

Avoid serving small pieces of food that could lodge in a child's throat. Popcorn, nuts, seeds, raisins, carrots, and hot dogs, even when cut into bite-sized pieces, can cause children to choke. Peanut butter can also cause children under age two to choke.



Picky Eaters

Children's appetites change from meal to meal for no apparent reason. Take daily variations in the amount of food they eat in stride. Children's rates of physical growth may slow, or they may be tired, excited, or not interested in eating. As a result they may reject foods they usually eat.

Picky eaters:

- Refuse to eat food that is served
- Are hungry right after a meal is finished
- Pick and poke at their food
- Seek attention by not eating
- Have finicky eating habits

Developing Healthy Eating Habits

You can help children develop healthy eating habits that will continue into adulthood by making mealtimes pleasant. If you create a positive atmosphere, children are more likely to develop good eating habits. Since habits and attitudes are influenced by what is going on at mealtime, try these ideas for pleasant meals:

- Allow few distractions (no TV, no toys).
- Set a relaxed pace.
- Show a personal interest in everyone.
- Eat only at the table.
- Encourage good table manners and conversation skills.

When children begin to feed themselves, messes will happen. Make eating easier by providing:

- Dishes, tableware, glasses, and furniture that is the right size for children
- Forks and spoons with short, broad handles
- Forks with short blunt tines
- Glasses with broad bases

Trying new foods can be a real challenge. When you do offer a new or unfamiliar food:

- Offer only one new food at a time.
- Serve it with a familiar food.
- Compliment children for trying; even one bite counts!

Continue to offer new foods, even if every one is not a success with the children. Food tastes often change as the child matures.

When Children Don't Want to Eat

If the child does not want to eat a particular food, don't make a fuss. No one food is vital to the nutritional well-being of a child. If the child truly dislikes a food, don't force the issue.

The more a child knows about a food, the better it will be accepted. Help the child learn about food. How does it grow, how did it get into this container, how was it prepared? Children are more accepting of a food if they can help to choose and prepare it.

Avoid playing games to encourage a child to eat. Pleading, forcing, promising rewards, or any type of pressure just don't work. The child eventually gets the message that a particular food is so awful that it shouldn't be eaten until a deal can be made or a reward offered for eating.

Resist the temptation to cook something else. When you become a short-order cook, you help children avoid foods they should be trying.

Encouraging Children to Eat

If you have a picky eater in your care:

- Be consistent.
- Serve meals and snacks on a regular schedule.
- Serve child-sized portions.
- Relax and show that you are happy during meals and snacks.
- Make sure the child understands no food will be served until the next meal or snack time.

Don't:

- Use games or bribes.
- Force the child to eat.

Remember:

- A child who refuses to eat isn't necessarily being difficult. Any number of things could be causing the child to be uninterested in eating.
- Skipping a meal will not cause a child to become malnourished as long as nutritious foods are eaten routinely. Children from 2-5 years of age are not growing rapidly and may not need very much food except during growth spurts.
- Children are good at deciding how much food they need. However, they are not as good at deciding what kind of food they need. You may need to help them learn about new foods that are good for them.
- Children want a regular, daily routine. If you serve meals at irregular times, they may get hungry and irritable.
- Follow your plan. Offer healthy food choices and a positive attitude, and you will avoid many mealtime battles.



Picky eaters seek attention by not eating.

Overweight Children: How Much Is Too Much?

An Overweight Child? Some Do's and Don'ts

Children come in many shapes and sizes. Some are heavy, others slight. Infants who are heavy generally do not become overweight adults. However, rapid weight gain just before puberty, usually at about age nine, often predicts weight problems in later life.

Overweight children are too heavy for their height. Some children will always be heavy for their height. Genetics play a big part in overweight, but attitudes toward food and eating habits learned early in life are important too. Regardless of the reason, weight loss diets are not recommended for growing children. Low calorie diets can endanger life, stunt growth, and decrease muscle mass.

Exposing youngsters to the feeling of deprivation that often accompanies a low calorie diet can only make them more anxious about their weight. Children who are deprived of food can easily become preoccupied with it. When food is available again, they may overeat out of fear of going hungry again—a quick start on the diet merry-go-round to which millions of people fall victim.

Overweight children are all too aware of their size. Nagging, casting subtle glances, or giving the impression of keeping track of what they are eating will not help them. They do not need to hear about their weight from the very people who are supposed to be a source of love, comfort, and support to them.

Overweight children sometimes develop poor social skills because some people react negatively toward those with weight problems. Remember that your attitudes toward food and eating are evident to the children in your care.

Treat the overweight child just like every other child. If fruit is served to the overweight child, fruit should be served to everyone. If cake and ice cream are served to other children, then they should be served to the overweight child too.

Many children will lose their extra weight once they have finished growing. Some will not because heredity or poor eating habits will influence their size and shape. If overweight children continue to be heavy as they grow older, their chances of becoming overweight adults increase.

During the past twenty years, the number of overweight children in the U.S. has increased. The consequences of being overweight in childhood can be serious.

Four factors seem to contribute significantly to overweight during childhood:

- Inactivity
- Poor food choices
- Using food as a reward or pacifier
- Serving large portions or force-feeding

Inactivity

Most children have boundless energy. You need to keep them busy and involved in activities, because boredom can lead to overeating.

Children learn best when they are interested and involved. Learning activities can be fun if they allow children to use their own ideas, experiment with materials or toys, and don't keep them waiting for action.

You can influence children's fondness for physical activity by playing with them. Encourage active play every day. Weather permitting, have children play outdoors every day. Active play burns calories.

Activities preschoolers enjoy:

- Hide and seek
- Throwing and catching balls
- Pushing, pulling, riding, and loading wagons, tricycles, carriages, and wheelbarrows
- Swinging, sliding, and jumping on playground equipment
- Dancing to music
- Jumping rope, skipping, sledding, swimming

Limit television watching. Prolonged television viewing can lead to both a decrease in physical activity and an increase in eating. Television can consume so much time that children may have difficulty restoring the balance between energy intake and energy expenditure.

Food as Reward or Pacifier

Children are born with a preference for sweets. Adults may use sweets to bribe them to eat other foods. Or, they hold back sweets as a punishment for some kind of misbehavior, whether related to eating or not. Sweets might also be offered to console a child who is disappointed, hurt, or tired. Eating for comfort can lead to overweight.

A statement like, "Clean your plate and you can have dessert," sends a message to a child that desserts are the best part of the meal. If children begin to think sweets are so special that they are no longer willing to try different foods, a food problem has begun.

Holidays or special occasions often revolve around food. Avoid using foods as a reward or placing undue emphasis on certain foods. Provide children with attention and affection instead of food.

The Clean Plate Club

Making children stay at the table until they eat everything on their plates encourages overeating and unhealthy attitudes toward food. When you force a child to eat and the child resists, a battle results. If this happens, everybody loses. You lose because you continue to feel frustrated by the way the child eats. The child loses because he or she becomes a finicky eater or a chronic over-stuffer.

Put the responsibility for eating where it belongs—with the child. Let the child decide how much food to eat. It is your responsibility to provide wholesome nourishing foods at regular times. A child won't get into nutritional trouble from not eating enough food if an adequate supply of healthy foods is made available.

Poor Food Choices

Many children view more than 5,000 televised food commercials a year. This reminder of the high-fat, low-nutrient foods that are available can make it difficult for children to select and eat a balanced diet.

Food can supply all the nutrients the body needs, but poor food choices mean poor nutrition. A good way to teach children about healthy food choices is to serve nutritious foods. Eliminate poor food choices from the menu. Teaching children about good nutrition is confusing unless you set a good example in your own eating habits.

Even very young children already know that less healthy snack foods and sweets exist. It may be more sensible to serve such snacks occasionally than to exclude them completely, because foods that are forbidden often seem more desirable. When you serve such snacks, make other foods available too. Restrict access to the refrigerator and cupboards to discourage eating for reasons other than hunger. A regular schedule of meals, snacks, and activities ends the need for constant nibbling.

Food Preparation Ideas

Foods high in nutrients and low in calories have high nutrient density. Low nutrient-dense foods are high in calories but low in nutrients. Preparation methods and ingredient choices can change foods that are nutrient-dense to those that are calorie-dense very easily. Compare these options:

Choose More Often

Whole wheat crackers
Baked or broiled chicken
Hamburger patty
100% fruit juice
Oatmeal cookies
Tuna or turkey sandwich

Choose Less Often

Chips
Fried chicken
Bacon, sausage
Fruit drink, soft drink
Peanut butter, chocolate chip, sugar cookies
Luncheon meat, hotdogs

Children enjoy food preparation. When you plan nutritious snacks, include foods that also teach some skills. Helping to prepare meals and snacks is a good way to create interest in and acceptance of foods.

Preventing or controlling overweight in childhood requires a great deal of support from the family and within the child care setting. As a child-care provider, you can work with parents of overweight children.

You can:

- Encourage more physical activity and less time inside the house watching television.
- Help children learn to deal with their emotions and stress without turning to food for comfort.
- Prepare snacks and meals that satisfy the basic nutritional needs and are also socially and emotionally satisfying for the child.
- Accept the child.

Remember, you can motivate children to eat well. Model healthy eating habits that will last a lifetime.



Prepare nutritious snacks.



Encourage physical activity.

Vitamins and Minerals: Building Healthy Bodies

Sometimes it is difficult to get children to eat foods that are good for them. When they don't eat a variety of foods, you worry that they won't get the vitamins and minerals necessary for good health. Most children don't know about, or even care about, vitamins, minerals, food groups, or serving sizes.

Science has identified more than forty nutrients that all people need. Nutrients give us energy, regulate body processes, and help us grow and repair body tissue. All of these nutrients can be found in food. Children need these nutrients because they are growing rapidly.

Children need iron, vitamins A and C, and calcium to grow. If they get enough of these nutrients from food, they will probably get enough of all the other nutrients they need, like protein, B vitamins, and vitamin D. If children eat a wide variety of nutritious foods, they will not need vitamin or mineral pills to stay healthy.

Iron is one of the nutrients needed during childhood. Preschoolers two to five years old are more likely to develop iron deficiency anemia than any other age group. It happens when too little iron is eaten and the body cannot make enough hemoglobin. Hemoglobin carries oxygen to the cells. It is made from iron, and protein.

Anemia makes children tired, weak, irritable, and pale. However, not all fatigue is the result of an iron deficiency, and iron deficiency is not the only cause of anemia.

Preschoolers are growing rapidly, so their blood volume is also increasing. This means the hemoglobin concentration will drop unless they eat enough iron-rich food. Children need to eat a variety of foods to get enough iron.

It is nearly impossible to get too much iron from the diet alone. Children and adults need iron-rich foods every day.

Foods That Are Good Sources of Iron

Protein Foods

- Lean meat: beef, pork, or veal
- Canned fish: tuna, mackerel
- Eggs
- Dried peas and beans
- Peanut butter
- Refried beans

Breads and Cereals

- Hot cereal: enriched cream of wheat or oatmeal
- Cold cereal: iron fortified, unsweetened
- Enriched rice, noodles, spaghetti, macaroni
- Whole grain breads and cereals
- Enriched corn tortillas

Fruits and Vegetables

- Dried fruits: peaches, raisins, apricots, prunes, and dates
- Lima beans
- Broccoli
- Spinach
- Greens
- Black-eyed peas, green peas

The body's ability to use iron from plant sources increases when plant foods are eaten with foods high in vitamin C, such as:

- Whole grain cereal or bread and orange juice or strawberries
- Raisins and orange sections
- Baked beans and tomatoes

Vitamins

Vitamins are one group of nutrients. They don't supply energy, only calories can do that, but they do control many body processes and:

- Release energy.
- Build new body tissue.
- Control the body's use of food.

Vitamins are vital, but only small amounts are needed. Think of vitamins as the spark plugs for many chemical reactions occurring constantly in the body.

Water-soluble vitamins are not stored in the body, so foods containing these vitamins must be eaten every day. It is difficult to get enough of vitamins A and C without including ample amounts of fruits and vegetables in the diet.

Sources of Vitamin A

Children can learn to identify dark green and dark yellow vegetables as good sources of vitamin A, including:

- Asparagus
- Winter squash
- Broccoli
- Carrots
- Spinach
- Peas
- Sweet potatoes
- Turnip greens
- Apricots
- Cantaloupe
- Peaches
- Pumpkin



Foods high in vitamin C help our bodies use iron.

Vegetables are often rejected by children. Sometimes this is because of family attitudes, but often vegetables simply are not as acceptable to children as other foods. The aroma of broccoli, cabbage, or cauliflower cooking on the stove can be distasteful. The texture of cooked spinach can be unpleasant, and overcooked vegetables often lack flavor. Some new foods may be rejected just because they are new. Learning positive things about vegetables will often help children grow to like them.

To be sure vegetables are cooked properly, follow these suggestions:

- Cook vegetables by steaming, boiling, stir-frying, or baking.
- Cook vegetables quickly, just until they are tender.
- Use a small amount of water when boiling vegetables. Use just enough water to bubble up over the vegetables. Large amounts of water will leach out valuable nutrients.
- Cook green vegetables in an uncovered pan to retain their color.
- Do not add baking soda to brighten the color of the vegetables. This practice softens the fiber and causes vitamin loss.
- Serve vegetables soon after cooking.

Many vegetables, like turnips, rutabagas, kohlrabi, zucchini, and parsnips, have a strong taste when they are cooked. They are crisp and tasty when served raw. A low-calorie dip might also make them more interesting.

Serve fresh fruits as much as possible. Fruits need little preparation because they are usually soft and easy for children to chew. If the skin needs to be removed, peel sparingly because many nutrients are just under the skin.

Proper food preparation methods are critical for retaining the largest amount of vitamin C. Large amounts of cooking water and high heat will increase the loss of this vitamin.

Sources of Vitamin C

Children need a good source of vitamin C every day.

Choose from:

- Oranges
- Strawberries
- Orange juice
- Cantaloupe
- Papaya
- Grapefruit
- Broccoli
- Cabbage
- Grapefruit juice
- Peppers
- Tomatoes
- Potatoes
- Tomato juice

Remember these methods for preparation:

- Cook vegetables quickly in a small amount of water.
- Cut or peel fruit just before eating.
- Store orange juice and other citrus juices in the refrigerator in a closed container.

Many of the fruit-flavored juices children enjoy have vitamin C added, but they are not a substitute for fruit juice. Fruit and fruit juice contains other nutrients important to good health. If these juices are used to replace citrus juices, their vitamin C content should be examined.



Children like fresh fruits because they are easy to chew.

Sources of Calcium

Children need calcium for growth of bones and teeth. They most frequently get calcium from milk and milk products. However, calcium is also found in green, leafy vegetables, dried peas, beans and legumes, and fortified soy milk.

How Much Milk?

A serving of milk is considered eight ounces or one cup. Everyone needs some milk every day. Children need two servings.

Low-fat or skim milk is not recommended for children under two years of age. Infants need the fat in whole milk for normal growth and the development of the nervous system.

Sources of Calcium in the Milk Group

- Milk
 - whole
 - skim
 - buttermilk
 - evaporated
 - nonfat dry
- Cheese
- Cottage cheese
- Pudding
- Yogurt
- Ice cream
- Ice milk

Milk Equivalents

Many milk products must be eaten in larger quantities to get the same amount of calcium as one cup of milk. The calories of these "milk equivalents" will also vary.

Equivalent to 1 cup milk:

- 1 cup plain yogurt
- $\frac{1}{4}$ of 14" cheese pizza

Equivalent to $\frac{1}{2}$ cup milk:

- 1 ounce cheddar
- 1 ounce natural Swiss cheese
- 1 ounce process Swiss cheese

Equivalent to $\frac{1}{2}$ cup milk:

- 1-inch cube cheddar
- 1-inch cube Swiss cheese
- 1 ounce process cheese food
- 1 square tofu 2" x 3" x 1"

Equivalent to $\frac{1}{3}$ cup milk:

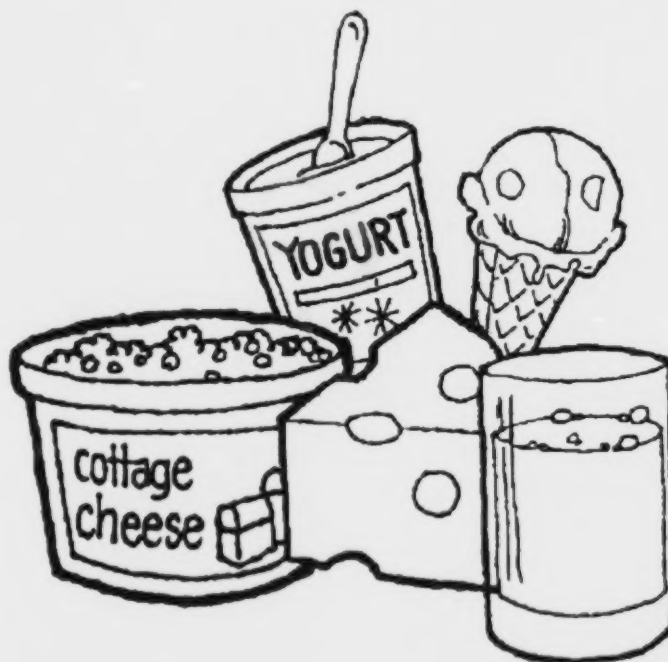
- $\frac{1}{2}$ cup ice cream or ice milk

Equivalent to $\frac{1}{4}$ cup milk:

- 1 tablespoon process cheese spread
- $\frac{1}{2}$ ounce process cheese spread
- 1 tablespoon Parmesan cheese
- $\frac{1}{2}$ cup cottage cheese

Boost Calcium Intake With These Ideas

- Add nonfat dry milk to soups, casseroles, stews, and meat loaf.
- Use yogurt in place of mayonnaise in salad dressings.
- Add grated cheese to pie crusts. (Tasty in apple and vegetable pies.)
- As a snack, broil cheese on corn tortillas.
- Prepare canned soups using milk instead of water.
- Sprinkle grated cheese on hot popcorn.
- Add cheese cubes to fruit salads.
- Use your favorite yogurt as a fruit salad dressing.



Helping Children Learn

Children need to learn about different foods and why they should eat a variety of foods. Children learn by being actively involved. To reinforce the relationship between eating a variety of good foods and growing, try this idea. Have each child lie down on paper and draw his or her outline. Cut it out and put it up in the room. In five months, do it again. Compare with the first cut out to show how much he or she has grown.

Use flannel board pictures to make a poster of the day's menu, of vegetables to put into soup, or of fruits to use to make a salad. Let the child use paints to design a healthy foods place mat.

Research shows that early experiences with food determine lifelong eating habits. You can provide many opportunities for learning experiences. Field trips help children learn about familiar foods. Use field trips to encourage them to taste and learn about some unfamiliar foods too.

Teaching Nutrition Without Pots and Pans

Food and nutrition activities that don't involve cooking or food preparation can be used to increase children's interest in food. Exploring the origins, texture, color, shape, and taste of food are all exciting activities for curious preschoolers. Young children can also learn to identify nutritious foods and select a healthy diet.

Food Shield Apron

Materials: One apron per child; materials to cut, color, and paste, or draw food pictures on apron or food patterns to trace and materials to color and paste; material to protect surface of apron from spills.

Tips for Field Trips:

- Do a "dry run" in advance by yourself.
- Go in small groups; it is less tiring, and it's easier for children to relate to people and things.
- Plan a related activity either before or after the trip.
- Include one adult for every 2-4 children.
- Keep it simple. Don't go too far. Limit activities during the trip. Avoid crowded places.
- Allow time for the child to explore, respond, react, and experience with all the senses - smell, touch, taste, and listen whenever possible.
- Talk about the trip before you go and again after you return.

Draw the shape of a shield on a purchased apron or one made from a commercial pattern, and divide the shield into five parts: breads and cereals, vegetables, fruits, milk, and meats. Each part represents one of the five food groups.



Combine fruits and vegetables into one area to make the food shield apron easier for children to complete.

Talk about the five food groups. Then let each child draw a favorite food from each food group in the appropriate section of the shield. Older children will be able to draw and color their own foods. Younger children will need either shapes of food to trace around or pre-cut pictures from old magazines to paste in each area. Apply an appropriate protectant to the surface of the apron so it can be sponged clean.

Ask the children:

What is a shield?

- Something that protects. It has a picture called a coat of arms on it which shows something special about its owner.

What is a food shield?

- Something that protects the health of its owner. The picture on it shows what the owner likes to eat.

Questions to ask:

How do you feel when you eat your favorite food?

Why does your body need certain foods?

How do you like your favorite food prepared?

When you involve children in actual food preparation, have them wear their food shields. Talk about how good food can protect them and help them grow.

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Dramatic Play

Children love to pretend. Dramatic play offers them an opportunity to experience and form ideas about the world around them.

Playing "Bakery Shop," "Grocery Store," and "Restaurant" can help children become familiar with measuring cups and spoons, ingredients, and making choices.

Bakery Shop

Materials: Small pans, muffin tins, plastic mixing bowls, stirring spoons, measuring cups and spoons, cookie and biscuit cutters, play dough, rolling pin, play money, bags to put purchases in, handbags or wallets, adult-style hats, jackets, bakery hats, aprons.

What to Do: Have children pretend to be bakers, clerks, and customers in the shop. The bakers can wear the aprons and hats while they mix, shape, roll out, decorate, and bake play dough foods. Clerks can display, price, and bag the products offered for sale in the store. Customers can dress up in adult clothes to go to the store. They can ask the bakers questions about the items on display, choose products to buy, and pay the clerks with play money.

Show the children how to play the game by playing with them at first. Encourage children to talk about the nutritional value of foods they are making or buying. Small children can talk about the parts of the food shield their baked goods represent. Older children can discuss possible menus or occasions for serving the products.

How to Make a Baker's Hat



Trace around a 20-inch plate onto white fabric. Cut out the circle of fabric. Cut a small triangle (approximately 4 inches tall with a 2-inch base) out of one edge.



Turn up the raw edges of the triangular opening $\frac{1}{4}$ -inch and stitch. Stitch two rows of gathering stitches along outer edges of the circle. Pull the gathering stitches and fit the edges onto an 18-inch long piece of 1-inch double-fold bias tape.



Stitch together. Sew a 2-inch length of 1-inch elastic to the headband to connect the edges of the triangular opening.



Your finished baker's hat should look like this.

Grocery Store

Materials: Clean, empty food containers (children can bring from home), large cardboard box with a rope or string for a handle (can be used for the grocery cart), grocery sacks, adding machine or toy cash register, hand bags, wallets, play money, adult-style clothes.

Children can play grocer wearing their food shield aprons (and their baker hats if they are working in the bakery section). They can unload and display the products for their store. Others can play customer by dressing in the hats or other items you've made available and choosing items from the store. The customers should have a list of what they need, ask questions about the freshness of food items, etc. Grocers should be ready to explain why their products are good and how they could be used. Pay for items with play money and pack in bags.

Restaurant

Materials: Place mats, unbreakable dishes and eating utensils, tables, chairs, toy grill or stove and refrigerator, aprons, menus, pad of paper, and pencil.

Make foods for the restaurant by cutting pictures from magazines and laminating them with clear contact paper. Children can pretend to be cooks, servers, cashiers, and diners. Servers can set the tables, serve plates filled with the food models, clear tables, and give diners their checks. Cooks can wear their food shield aprons and hats while preparing foods, filling orders, and doing dishes. Cashiers can seat people in the restaurant, accept play money payment, and make change. Diners can choose items from the menu, discuss the food while eating, and pay for the meal with play money. Encourage children to discuss nutrition concepts you have been teaching by role-playing with them.

Felt Board Activities

Food Rainbow

Make a rainbow from different colors of felt. Choose colors such as:

- Yellow for bananas, corn, apples, and some cheeses
- Red for strawberries, cherries, tomatoes, and some meats
- Green for broccoli, beans, and kiwis
- Orange for oranges and pumpkins

- White for milk, rice, pasta, and some meats and cheeses
- Brown for potatoes, breads, and some meats
- Blue or purple for grapes and blueberries

Cut out foods from felt to match the color you selected for that food group or paste colored pictures of food from magazines on felt squares.

Discuss which foods are the children's favorites and why.

Which ones are chewy, crunchy, sweet, or sour?

How do the foods grow?

Do they grow on a vine, in the ground, on a tree, or on a bush?

Have children match the color of each food to the color of the rainbow to teach color identification.

How Does Your Garden Grow?

Children can plant their own garden using felt fruit and vegetables. Provide colors of felt such as:

- Brown for soil, potatoes
- Blue for sky, blueberries, plums
- Yellow for the sun, pears, squash, corn
- Black for rain clouds,
- White for fluffy clouds, raindrops, onions
- Green for trees, plants, beans, onion tops, lettuce, broccoli, peas, peppers
- Red for apples, strawberries, tomatoes, peppers
- Peach for peaches
- Orange for carrots and pumpkins



Use the felt board to tell stories. Have the children explain how a certain fruit or vegetable grows. Help them understand the need for sunlight, water, and soil.



Children can pretend to be cooks while playing "Restaurant."

Kids in the Kitchen

Get kids into the kitchen.

While children help prepare food, they can learn about new words and relationships and develop a more active interest in food. In addition, they may be more willing to accept new foods if they've helped prepare them.

Children can learn about size and quantity by measuring cupfuls of water and comparing large and small fruits. They learn about colors, shapes, and temperatures as they handle oranges and bananas, warm muffins, and cold fruit juice.

Following the steps in a recipe teaches children about order. Measuring develops math skills. Waiting for bread or cake to come out of the oven teaches about time, and setting the table exercises memory skills.

Remember, children develop at different rates. Having patience and taking time to involve children in food preparation is the key to success.

Be sure to involve boys as well as girls in kitchen activities. They both need to know these skills.

To Maximize Learning:

1. Label all ingredients and let children explore them—see, feel, smell, and possibly taste.
2. Talk about where ingredients come from and how they're used. For example, eggs come from chickens, and they are used to make french toast, egg salad, and scrambled eggs.
3. Demonstrate cooking terms such as stir, grate, sift.
4. Help children describe changes and ingredients when they are combined, cooked, and chilled.
5. Introduce math concepts such as adding five raisins, one-half cup milk, or one tablespoon oil.
6. Show and tell children what to do in a positive manner rather than tell them what not to do.

7. Let children participate from start to finish. Remember, cleanup is part of the cooking activity.
8. Repeat project for practice.

Hints for Organizing Successful Cooking Experiences

Plan activities that are age-appropriate.

Two- and three-year-olds can:

- Wash vegetables.
- Tear lettuce.
- Shuck corn.
- Shape burgers and meatballs.
- Snap peas.
- Peel bananas, if the top is cut off.
- Wipe the table.
- Clear their own place settings.

Three- and four-year-olds can:

- Toss salads.
- Break eggs into a bowl.
- Open packages.
- Measure or mix ingredients.
- Make sandwiches.
- Knead and shape dough.
- Pour cereal, milk, and water.

Five-year-olds can:

- Set the table.
- Wash dishes.
- Help load the dishwasher.

Be sure to:

1. Work in small groups; four to six is ideal.
2. Wash your hands.
3. Use pictorial recipes to illustrate each step.
4. Laminate recipe cards or put them in a zip-top bag to protect them from spills.
5. Review recipes with children before starting.
6. Emphasize safety when demonstrating any new equipment or cooking procedure.
7. Have water, clean sponges, and towels handy for cleanup.

Teaching Pouring and Measuring Skills

Show children how to pour liquids. Use a lightweight, small pitcher and a drinking glass. Help them with the pitcher or hold the glass and let them practice. Start by using water or rice, beans, or macaroni.

When they can pour without your help, let them pour milk and juice for snacks.

Place a rubber band around the middle of a non-breakable drinking glass. Let children practice filling the glass to the mark.

Children can learn to measure dry ingredients too. Let them fill measuring cups and talk about the different markings and types of cups.

Sifting and leveling a cup are also skills they can learn. Be sure to let them practice.

Ground Rules for Having Fun in the Kitchen

- Keep activities simple.
- Choose recipes that will be successful and have quick results. Practice ahead of time.
- Teach children the importance of cleanliness. Wash hands before you cook. Teach children not to sneeze or cough on food.
- Let children do as much as possible from start to finish. Remember the more you do, the less children learn.
- Never leave children alone in the kitchen. There are too many hazards to leave them unattended.
- If children don't want to participate, don't force them.
- Allow plenty of time for children to finish the activity.
- Have fun!

May I Help You Cook?

Children can:

- Help stir mixtures.
- Help form mixture into balls.
- Roll food in crushed cereal flakes.

From *Kids and Food: Snack Time for Kids* by William Evers.

Honey Milk Balls

$\frac{1}{4}$ cup honey*
 $\frac{1}{2}$ cup nonfat dry milk
 $\frac{1}{4}$ cup peanut butter
 $\frac{1}{2}$ cup crushed, unsweetened cereal flakes

Mix honey and peanut butter. Gradually add milk, mixing well. With greased hands, form mixture into balls. Roll in crushed cereal flakes. Chill until firm. Makes about 30 small balls.

*Infants under one year of age should not be fed any foods, cooked or uncooked, containing honey because of the risk of infant botulism.

Veggies and Yogurt Dip

Wash vegetables and cut into different and interesting shapes. Serve with yogurt dip:

Yogurt Dip

1 cup yogurt
2 Tablespoons lemon juice
1 teaspoon paprika
 $\frac{1}{2}$ teaspoon dry mustard

Mix well and chill several hours. Serve with fresh vegetables.

Children can:

- Wash vegetables.
- Cut food into serving pieces.
- Mix dip.



Children will eat food they help prepare



Day care providers can help children learn to enjoy nutritious foods.

Snack Pizza

1 package refrigerator biscuits or English muffins
 $\frac{1}{4}$ cup tomato paste
1 teaspoon oregano
Toppings: sliced or chopped onion, cheese, mushrooms, pepperoni

Pat each biscuit into a 4" circle on a cookie sheet, or slice English muffins and place cut side up on cookie sheet. Mix the tomato paste and oregano together and spread on each biscuit. Put on toppings. Bake at 400 degrees about 8 minutes or until slightly browned.

Children can:

- Pat out biscuits.
- Spread tomato paste.
- Chop, slice, or shred toppings.
- Choose favorite topping and put on pizza.

Veggie Sandwich

Vegetables: carrots, cauliflower, broccoli, zucchini, or other veggies in season.

Fillers: peanut butter, cheese spread or cream cheese.

Wash and cut vegetables into thin slices. Spread half the slices with one of the fillers and top with another slice of vegetable to make a sandwich.

Children can:

- Wash and cut vegetables into slices.
- Spread filler on slices.
- Put tops on sandwiches.

Soft Pretzel Creatures

1 package dry yeast
1½ cups warm water
4 cups flour
1 teaspoon salt
1 Tablespoon sugar

Dissolve yeast in warm water in a large bowl. Mix flour, salt, and sugar in another bowl. Stir 3 cups of the flour mixture into the yeast and water.

Knead the mixture, adding remaining flour mixture as necessary. Break off small pieces of the dough for each child to make a creature.

Once shaped, place creatures on a greased baking sheet. Coat them with a mixture of one slightly beaten egg and 1 tablespoon water. Bake at 475 degrees for 12 minutes or until browned.

Soft creatures don't store well. Refrigerate unused dough and bake when they can be eaten fresh.

Children can:

- Measure ingredients.
- Stir ingredients.
- Knead dough.
- Shape soft pretzel creatures.
- Brush on coating.



Children enjoy handling bread dough.

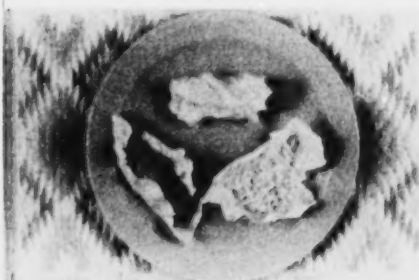
Wiggly Fingers

¾ cup pineapple juice
3 packages unflavored gelatin
1 cup orange juice
1 cup boiling water

Soften gelatin in a little pineapple juice. Slowly add 1 cup boiling water. Stir until gelatin is dissolved. Add remaining juices. Pour into 9" x 13" pan. Chill in refrigerator until set. Cut into finger lengths.

Children can:

- Stir gelatin in juice.
- Measure cold ingredients.
- Pour liquid into a pan.
- Cut food into shapes.



Veggies roll-ups can be made with fillings such as cheese, meat, and peanut butter.

Veggie Roll-ups

Vegetables: cabbage, lettuce or spinach leaves
Fillings: peanut butter or thin slices of meat or cheese

Wash cabbage, lettuce, or spinach leaves and dry with paper towel. Spread leaves with peanut butter, roll filling inside, and eat. Variation: roll with a thin slice of meat or cheese instead of peanut butter.

Children can:

- Wash and dry vegetable leaves.
- Spread filling.

Ants on a Log

Celery
Peanut butter
Raisins

Wash celery and cut into serving sizes. Fill each slice with peanut butter and place raisins on top.

Children can:

- Wash celery.
- Cut celery into pieces.
- Fill celery with peanut butter and top with raisins.



Food activities like celery cars and ants on a log are fun to make and eat.

Tin Can Yogurt

2 cups plain, low-fat yogurt
 $\frac{1}{2}$ cup sugar
1 cup fruit or berries

Put all ingredients in a one-pound coffee can with a tight-fitting lid. Place lid on can. Place can with ingredients inside a #10 or three-pound coffee can with a tight-fitting lid.

Pack larger can with crushed ice around small can. Pour at least $\frac{3}{4}$ cup of rock salt evenly over ice. Place lid on larger can. Roll back and forth on table or cement slab for 10 minutes. Open outer can. Remove inner can with ingredients. Remove lid and use spoon to stir up mixture from sides and bottom of can. Replace lid. Drain ice water from larger can. Insert smaller can; pack with ice and salt. Roll back and forth for five more minutes. Place in freezer compartment of refrigerator for an hour to set or eat as soft ice cream.

Children can:

- Measure ingredients.
- Stir a mixture.
- Roll the can back and forth.

From *Today's Tips for Easy Living* by Diane Thomas, HP Books, 1982.



Children enjoying preparing food together.



Children learn healthy food habits from the example set by day care providers.



Making face sandwiches is a creative activity for children.

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